FINAL REPORT
OF
INFORMAL WORKING GROUP -- NUMBER ONE

I. GENERAL

The terms of reference for the work of Informal Working Group - Number One (IWG-1) were set forth in Industry Advisory Committee (IAC) document IAC-13 dated April 9, 1990. Essentially IWG-1 was established to deal with recommendations for U.S. proposals and positions for WARC-92 dealing with the 3-30 MHz band. Specifically, the matter to be dealt with is WARC-92 Agenda Item 2.2.2 -- "The possible extension of the frequency spectrum allocated exclusively to HF broadcasting, as indicated in Recommendation No. 511 (HF BC-87)".1/

Starting with its first meeting on April 19, 1990, IWG-1 held a total of ten meetings between that date and March 26, 1991. Twenty-six members of the public participated in the work of IWG-1. A total of ninety documents came before IWG-1 for information and/or consideration. Reports based on the work of the members of IWG-1 were forwarded to the IAC on May 4, 1990, July 24, 1990, and November 9, 1990.

The initial efforts of IWG-1 were devoted to preparation of recommendations for use by the U.S. member of the ITU Administrative Council with regard to the WARC-92 agenda at the June 1990 Council meeting. Those efforts culminated in the May 4, 1990 report referenced above. IWG-1 prepared responses to

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1/ Recommendation 511 - addresses the subject of the "Possibility of Extending the Frequency Spectrum allocated exclusively to HF Broadcasting at a Future Competent World Administrative Radio Conference."

the Commission's First and Second Notices of Inquiry in its WARC-92 docket (Docket 89-554). These were contained in the July 24, 1990 and November 9, 1990 reports also referenced above.

II. ITU EFFORTS TO DEVELOP SPECTRUM PLANS FOR HF BROADCASTING WERE REVIEWED.

IWG-1 reviewed the efforts of the ITU to develop spectrum plans for HF Broadcasting. Note was taken that all attempts by the ITU since 1948 to plan equitably the HF spectrum allocated to broadcasting have failed. This failure stems primarily from the broadcasting requirements of ITU member countries having greatly exceeded the number of available channels in the allocated spectrum. In its proposals to WARC-79, the U.S. stated "Congestion in the high frequency broadcasting bands has reached the point where effective use can only be made through the use of excessive transmitter power and multiple transmitters broadcasting the same program to a given area simultaneously on more than one frequency per band." While WARC-79 took certain actions to alleviate the situation, it did not adopt the proposals for greater expansion offered by the United States and a large number of other countries. Since 1979, the total of world broadcasting on the HF bands (excluding Tropical Zone bands) has increased from approximately 28,000 frequency hours daily to a present level of approximately 40,000 frequency hours.

The level of broadcasting by FCC International Broadcast

licensees has increased from approximately 100 hours in 1979 to a present level of approximately 800 hours. The Soviet Union and the United States are the world's largest users of the HF

include the possibility of extending the HF frequency spectrum allocated exclusively to the broadcasting service with the aim of planning that spectrum within the framework of the improved HFBC Planning System".3/ Resolution No. PL-B/1 of the Plenipotentiary Conference4/ was a response to the WARC-HFBC-87 recommendation and has culminated in item 2.2.2 of the WARC-92 agenda.

III. SEVERAL BASIC PRINCIPLES WERE ADOPTED TO GUIDE WORK OF IWG-1

IWG-1 identified and adopted several principles that were applied in preparing its proposals for WARC-92. These are:

- no intrusion into the maritime mobile bands5/
- no intrusion into the aeronautical (R) and (OR) bands
- no intrusion into the amateur bands and elimination of a long standing inconsistency between Regions at 7100-7300 kHz that does not fully satisfy the needs of either the broadcasting or the amateur service.
- based on the declining role of the HF Fixed service, HF Broadcasting expansion should be accomplished

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3/ Final Acts of the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (HFBC-87); Geneva, 1987 - International Telecommunication Union, Geneva, Switzerland.

4/ Final Acts of the Plenipotentiary Conference: Nice, 1989 - International Telecommunication Union, Geneva, Switzerland.

5/ Changes in these planned bands were avoided due to the safety aspects [illegible]

primarily within the bands allocated to the fixed service and, in some cases, including the mobile services taking into account that some of these fixed and mobile services are of significant importance to the U.S. interests affected.

- by and large existing HF Broadcasting bands are to be "expanded" rather than creating separate totally "new" bands.
- spectrum allocated to HF Broadcasting is to be on a worldwide basis (to facilitate the planning work to be done by WARC-HFBC-93 -- "World Plan"). This should not preclude different national arrangements for the fixed service as long as those arrangements do not interfere with the World Plan.

IV. EXPANSION OF HF BROADCASTING BANDS IS JUSTIFIED

IWG-1 took into account studies prepared for WARC-79. These studies indicated a significant increase in the amount of spectrum available to HF Broadcasting would be necessary if requirements existing at the time were to be satisfied adequately. However, WARC-79 made available only 40% of the additional spectrum requested and then mainly in the bands above 10 MHz. Briefly put, WARC-79 left the identified inadequacies below 10 MHz unresolved, and only partially accommodated the required spectrum above 10 MHz.

As stated earlier above, there are approximately 40,000

broadcasting frequency hours worldwide currently in use. Additional hours are necessary to accommodate present demand. The U.S. government uses approximately 2,000 (1,000 VOA and 1,000 RFE/RL). Even if the U.S. government curtailed its use, substantial additional frequencies still would be required in order to prepare a World Plan. In many instances it is impossible for FCC licensees to conduct broadcasting operations for

ference, i.e., increased interference to broadcasters by other broadcasters. This will make the task of the WARC-HFBC-93 all the more difficult unless additional spectrum is allocated.

VI. ADJUSTMENT OF ALLOCATIONS FOR BROADCASTING AND AMATEUR SERVICE IN 7 MHz BAND

The IWG-1 Report recommended that the longstanding incompatibility problem at 7100-7300 kHz between the Amateur Service in Region 2 and the Broadcasting service in regions 1 and 3 be resolved by shifting the existing Amateur Service allocation of 7000-7300 kHz downward by 50 kHz, to 6950-7250 kHz, and an expanded Broadcasting service allocation upward by 150 kHz, to 7250-7750 kHz, thus providing exclusive worldwide allocations for each service. This approach had general support in the Working Group, except from non-broadcast interests who oppose allocation of 7400-7750 kHz because of critical fixed services in that portion of the 7 MHz band.

The Commission proposes a similar but slightly different approach; to shift each service by 100 kHz, so the Amateur Service worldwide allocation would be 6900-7200 kHz (with the Mobile Service retaining its secondary shared allocation of 6900-7000 kHz) and the Broadcasting Service worldwide allocation would begin at 7200 kHz. The Commission proposes a worldwide allocation for broadcasting of 325 kHz, to an upper limit of 7525 kHz, which would be a new band in Region 2 and an expansion of the existing band by 125 kHz in Regions 1 and 3.

On balance, the consensus of IWG-1 participants is that the Commission's proposal for realigning allocations for the Amateur service to the 6900-7200 kHz band represents a satisfactory compromise of the conflicting requirements of non-government HF users, as long as there is reaccommodation of displaced Fixed Service channels and as long as the interests of all services are adequately protected during the period of transition.

VII. SHARING AND REACCOMMODATION

Obviously, the broadcasting services clearly would prefer exclusive allocations rather than shared. However, IWG-1 understands the realities believed to be driving the Commission's view in its Second NOI at paragraph 31 "that is essential that as a part of any agreed broadcasting reallocation, non-broadcasting HF services must retain the flexibility to maintain regulatory access to bands of spectrum reallocated to the broadcasting service worldwide."6/

IWG-1 concurs with the Commission's proposal for the

changeover date established in the "Transfer Phase". In its July 27, 1990 Report, IWG-1 recommended that five years be allowed from the time the WARC-92 agreements go into effect for reaccommodation. Since the 1 July 2007 date proposed in Resolution BBB amounts to fifteen years, IWG-1 would urge the Commission to consider a shorter time span. If the five years suggested by IWG-1 is unrealistic, a compromise that would move the date closer would be acceptable (such as seven years or even ten years).

Reaccommodation of fixed and mobile services that would be displaced in making way for additional spectrum allocation for broadcasting was an important issue in the Work of IWG-1. IWG-

cies in the 2-10 MHz range are currently used by state and local governments for disaster relief operations pursuant to Section 90.264 of the Commission's rules ("Operation Secure"). These

the forum for micro-managing a conversion of HF Broadcasting receivers.

IWG-1 took into account a study funded by the Voice of America in 1986 which concluded there are more than 500 million shortwave receivers in existence in the world excluding North America. In view of this, there clearly will be great difficulty in bringing about the adoption and diffusion of a new generation of receivers worldwide. It is most difficult to imagine that over 500 million receivers would effectively be replaced within 15 years. The reality is that HF broadcast operators to achieve their goals of reaching audiences must transmit in a manner that their programs will be heard. Member Administrations of the ITU will have to persuade their citizens to replace existing receivers with something new, i.e., SSB. How, when, and if this can be done seems to be a proper matter for the agenda of WARC-HFBC-93.

IWG-1 does not recommend backing away from the concept of converting HF Broadcasting to SSB. The U.S. has already made its views known on this subject as far back as WARC-79. To assist the Commission in establishing an incentive for the early development of HF Broadcasting via SSB, IWG-1 reiterates the suggestion made in its July 27, 1990 Report that a priority be accorded to SSB stations operating in the proposed newly allocated bands in accordance with Appendix 45 of the Radio

using SSB emission shall be accommodated before stations using DSB. This proposal is considered "do-able" as compared to a sweeping conversion of all existing HF broadcast receivers.

IX. NEW TECHNOLOGY CONSIDERATIONS

excluding North America.7/ The following is an estimate from the VOA Study on Global Distribution of Shortwave radios:

Region	Estimated Number of Shortwave radios
Africa	37,825,000
Middle East	42,619,000
Asia	168,458,000
Middle Asia	12,229,000
Central America	17,116,000
South America	39,936,000
Eastern Europe	105,980,000
Western Europe	97,063,000
TOTAL WORLDWIDE (Excluding North America)	521,226,000

In view of the foregoing, IWG-1 feels the conversion to SSB should remain a desireable target, essentially along the lines of Resolution 517. There remains substantial concern that relatively few consumer receivers are capable of receiving SSB.

X. SPECTRUM CONSIDERATIONS

In the course of its Reports to the IAC, IWG-1 endorsed a requirement for 2455 kHz of additional HF spectrum vis-a-vis the 1325 kHz offered by the Commission in its Second Notice. IWG-1 has not retreated from its position that the additional 2455 kHz is needed in order to develop a "World Plan" under ITU auspices. While the resistance to expanding the HF broadcast bands is acknowledged, the proposals attached to the IWG-1 reports of July 24 and November 9, 1990 with regard to spectrum stand as

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7/ R.S. Fortner, D.A. Durham, A Worldwide Radio Receiver Population Analysis, USIA Contract #IA-22188-23, Washington, D.C.: Voice of America, May 15, 1986.

IWG-1 recommendations.

XI. TERMINATION OF IWG-1

The members of IWG-1 worked hard to develop the Reports and the recommendations they contain over a period of almost one year. All members strove to put forward recommendations to best serve the interests of the U.S. as regards the 3-30 MHz band when it comes up for debate at WARC-92. As the work of IWG-1 comes to a close, all its members consider it a privilege to have been invited to participate in a task important to all users of HF spectrum and to the overall interests of our great country.

CEJ/LRR/R04/IWG1-FR

ATTACHMENT C

LAW OFFICES

FISHER, WAYLAND, COOPER AND LEADER

1255 TWENTY-THIRD STREET, N.W
SUITE 800
WASHINGTON, D. C. 20037-1170
TELEPHONE (202) 659-3494
TELECOPIER (202) 296-6518

WRITER'S DIRECT NUMBER
(202) 775-5544

BEN C. FISHER
GROVER C. COOPER
MARTIN R. LEADER
RICHARD R. ZARAGOZA
CLIFFORD M. HARRINGTON
JOEL R. KASWELL
KATHRYN R. SCHMELTZER
DOUGLAS WOLOSHIN
BRIAN R. MOIR
DAVID D. OXENFORD
BARRY H. GOTTFRIED
ANN K. FORD
BRUCE D. JACOBS
ELIOT J. GREENWALD
CARROLL JOHN YUNG
JOHN JOSEPH MCVEIGH
BARRIE D. BERMAN
JOHN K. HANE III
BRUCE F. HOFFMEISTER
SCOTT R. FLICK
FRANCISCO R. MONTERO
GREGORY L. MASTERS*
MATTHEW P. ZINN
ROBERT C. FISHER
LAUREN ANN LYNCH
BRIAN J. CARTER
GLENN S. RICHARDS
KELLY D. YAKSICH*
JOHN M. BURGETT*
SHARON L. TASMAN*

*NOT ADMITTED IN D.C

BEN S. FISHER
(1890-1954)

CHARLES V. WAYLAND
(1910-1980)

OF COUNSEL
JOHN Q. HEARNE

MCI MAIL: FWCLDC

January 8, 1993

BY HAND DELIVERY

Mr. W. Russell Slye
Office of Spectrum Management
National Telecommunications and
Information Administration
U.S. Department of Commerce
14th Street and Constitution Avenue, N.W.
Room 4099
Washington, D.C. 20230

RE: NTIA Docket No. 920532-2132
Current and Future Frequency Requirements

Dear Mr. Slye:

Enclosed for filing in the above proceeding are an original and six copies of the Reply Comments of our client, the National Association of Shortwave Broadcasters (NASB). To acknowledge NTIA's receipt of these documents, please date-stamp the enclosed receipt copy and remit to the bearer.

Sincerely,

J. J. McVeigh

Richard R. Zaragoza
John Joseph McVeigh

Enclosures
8025-000

BEFORE THE
DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

In the Matter of	)	
	)	
Current and Future Requirements for the Use of Radio Frequencies in the United States	)	Docket No. 920532-2132

REPLY COMMENTS OF THE
NATIONAL ASSOCIATION OF SHORTWAVE BROADCASTERS

The National Association of Shortwave Broadcasters ("NASB") hereby submits its Reply Comments pursuant to the NTIA's Notice of Inquiry ("Notice") in this proceeding, dated June 1, 1992. The Notice has sought discussion of the future requirements of various users of the radio frequency spectrum. Additionally, the NTIA has sought guidance on issues related to International Telecommunication Union radio conferences. In initial Comments, the NASB has provided its members' collective insights into those matters. In these Reply Comments, NASB will focus on assertions of others concerning present and future spectrum needs of, among others, broadcasters. NASB will also speak to mechanisms by which the NTIA and other decision-makers can rationally assess both present spectrum usage and future spectrum needs.

1. As NASB's Comments demonstrated, NASB's membership is diverse. Its members' common interest is in advancing the stature of FCC-licensed shortwave broadcasters and in improving the business, regulatory, and operating conditions for shortwave broadcasters. NASB's voting members are licensees and permittees in the international broadcast service regulated by the FCC and thus are direct users of HF spectrum on a daily basis, through both active transmission schedules and monitoring of HF bands.

2. The members' own activities -- and their interaction with their audiences through, among other means, listener correspondence -- give the membership an informed opinion concerning current spectrum usage levels, the current reception capabilities of the people living in the global regions the members target, and those populations' likely future reception capabilities. NASB draws upon this wealth of experience in composing these Reply Comments.

I. SPECTRAL NEEDS

3. NASB respectfully but vigorously disagrees with

(b) that the long-range propagation characteristics of HF spectrum make the preservation of fixed and mobile allocations "essential," particularly to support aerial drug-interdiction efforts "that cannot be supported by satellites or other means."

Treasury Comments at 2.

4. Similarly, the Department of Justice asserts that, "even though mobile satellite systems can relieve some High Frequency (HF) spectrum congestion, ...HF systems will still be needed. Justice Comments at 2. The Department also claims:

(a) that an "[in]adequate number of available HF law enforcement frequency assignments points to the need to reevaluate current and past HF spectrum utilization and assignment practices by both the Federal Government and the FCC.";

(b) that "Mobile satellite systems can relieve some High Frequency (HF) spectrum congestion, but HF systems will still be needed. HF is a primary mode of interoperability with

should doubt NASB members' commitment to and vital interest in a stable society, the rule of law, and our country's achievement of its national interests. That said, the NTIA itself as well as other parties have generated a substantial amount of evidence that much of the current HF spectrum allocated to fixed and mobile services is scarcely used. The two Departments' claims that they actually lack the HF spectrum they need to fulfill their missions at most lacks credibility and at least lacks specific factual support.

6. As NASB stated in its initial Comments, NASB has participated actively in preparations for WARC-92 and the drafting of the United States' proposals for that conference. NASB and other private-sector entities have consistently sought the adoption of balanced proposals that rationally took into account the legitimate needs of all users of the spectrum, including governmental entities. NASB has been frustrated, however, by blanket assertions by certain governmental agencies of spectral needs -- assertions presented without any empirical support, e.g., channel-loading data, purportedly due to security concerns. By contrast, based on actual channel monitoring and other evidence, it is the impression of NASB and others that current fixed and mobile primary HF allocations are overly generous by a substantial margin and that alleged future needs of mobile and fixed users for HF spectrum are vastly overstated.

7. It is beyond question that emerging technologies including mobile satellite services will reduce fixed and mobile

HF channel usage below even the current minimal levels. At some point, then -- and NASB submits that we have already reached that point -- the making of exclusive allocations for fourth, fifth, or sixth levels of communications redundance not only is of questionable spectral efficiency and dubious practical (and fiscal) legitimacy, but also is counterproductive to the national interest in the fullest sense of the phrase.

8. The Department of Justice has concluded that those same emerging technologies will send HF broadcasting packing down the route of the dinosaurs. However, that conclusion lacks justification. It is a very simple matter for fixed and mobile users to avail themselves of new technologies because they control the procurement of equipment used at both ends of the communications circuit. By contrast, HF broadcasters serve a global audience, most of which only dreams of the standard of living that the people of the United States, Canada, Western Europe, and a handful of other countries enjoy.

9. It is folly to think that the peoples of Central and South America, Africa, Eastern Europe and Central Asia will be able to afford even receivers capable of SSB reception -- let alone Direct Broadcast Satellite receivers -- in the foreseeable future. Much of the gross national products of those societies is required to sustain the marginal living conditions their peoples endure. Mandatory foreign debt reduction, construction of the most basic infrastructures, and the beginnings of industrialization consume the bulk of what remains. There is

little or nothing left for consumer goods -- luxuries, really -- such as high-technology communications receiving installations.

10. Hence, for the foreseeable future, the audience that NASB's voting members serve and will continue to serve will rely on relatively low-technology receivers -- those which tune between 3 and 30 MHz, and geared primarily to double-sideband, amplitude-modulation service. And NASB's members will be able to do nothing to change that. NTIA must recognize this reality and make suitable provisions for it.

11. NTIA must also recognize the value to the United States of HF broadcast service to the rest of the world. Although the Cold War is over, rising tides of nationalism, ethnocentrism, Islamic fundamentalism and worsening North/South economic disparities threaten regional stabilities and ultimately global peace and progress. HF broadcasting is the most efficient and in many cases the only means of reaching large foreign populations and providing them with messages that can enhance stability, international understanding, and economic progress. HF shortwave broadcasting in its current form is thus a crucial tool in furthering the national interests of the United States, and will remain so indefinitely. The regulatory privileges that HF broadcasting is to enjoy must correlate with its crucial international role.

II. IMPROVED DECISION-MAKING PROCESSES

12. NASB above alluded to its dissatisfaction with the existing mechanisms for making spectrum-allocations decisions and for preparation for ITU World and Regional Radio Conferences. A principal defect in the current mechanisms is decision-making out of the sunshine and in an incestuous manner. Excessive classification of data results in the abject inability of other parties to examine and evaluate in good faith the claims of spectral need by certain governmental agencies.

[redacted]

include sufficient additional allocations for the present and future HF Broadcasting service and effective means to test the validity of claimed needs by all parties for additional spectrum.

Respectfully submitted,

NATIONAL ASSOCIATION OF SHORTWAVE BROADCASTERS

By _____
Richard R. Zaragoza
John Joseph McVeigh
Its Attorneys

Fisher, Wayland, Cooper and Leader
1255 Twenty-third Street Northwest,
Suite 800
Washington, D.C. 20037-1170
(202) 659-3494

Date: January 8, 1993

CERTIFICATE OF SERVICE

I, Renee Gray, a secretary to the law firm of Fisher, Wayland, Cooper and Leader, hereby certify that I have, this Eighth day of January, 1993, sent by first-class United States mail, postage prepaid, copies of the foregoing "**REPLY COMMENTS**" to:

Mr. Steven W. Broadbent
Deputy Assistant Secretary
for Information Systems
Department of the Treasury
15th and Pennsylvania Avenue Northwest
Room 2464
Washington, D.C. 20220

Roger M. Cooper, Esq.
Deputy Assistant Attorney General
Information Resource Management
Justice Management Division
Department of Justice
10th and Constitution Avenue Northwest,
Room 1121
Washington, D.C. 20530

Renee Gray